Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A nasal cannula comprising:

first and second nasal inserts positioned on the nasal cannula with no indentation between the first and second nasal inserts for insertion into a patient's nares; whereby the area of each insert and the area of the nare are essentially equal so that a positive air pressure seal is created between the nare and the insert;

a first delivery tube and a second delivery tube, each coupled to both of said nasal inserts, whereby each nasal insert communicates with both the first delivery tube and second delivery tube;

a coupler located remote from said nasal inserts for coupling said cannula to said source of respiration gas; and

at least one bleed port positioned proximate a nasal insert communicating with said delivery tubes, having an opening flush with the exterior of the nasal cannula that is directly open to atmospheric pressure[.] and having an internal height less than ten times the thickness of the delivery tube at the location of the bleed port.

2. (Previously Presented) The nasal cannula of claim 1 further comprising:

at least two tubular bleed ports each having an internal lumen;

each of said tubular bleed ports located directly in line with one of said nasal insert for preferentially intercepting expired gas during an exhalation, said bleed port

having an characteristic bleed port diameter called BPD, and said bleed port separated by a distance called L.

3. (Previously Presented) The nasal cannula of claim 1 wherein:

said tubular bleed ports are located and sized to reduce the carbon dioxide content of inspired air to a value below approximately 0.5% carbon dioxide for the air inhaled from and retained by the delivery tubes.

4. (Previously Presented) The nasal cannula of claim 1 wherein:

said nasal inserts terminate in a compliant flange at their distal ends to conform to the nare of a patient.

5. (Previously Presented) The nasal cannula of claim 4 wherein:

each of said first or second nasal inserts has a characteristic length;

the length of either the first or second nasal insert are sufficiently long to allow an insert to move in the nasal passage until the cross section area of the nare and the cross section area of said nasal insert, are substantially the same, thereby forming a positive pressure seal between said nasal insert and said nare.

6. (Currently Amended) A nasal comprising:

two nasal inserts positioned on the nasal cannula with no indentation between the first and second nasal inserts for insertion into a patient's nares,

each insert having a flange member at is terminal end for sealing against said nare against the positive air pressures;

a first delivery tube and a second delivery tube meeting together proximate the nares forming plenum, having a plenum volume; and

one or more bleed ports directly inline with said nasal insert and having an opening flush with the exterior of the nasal cannula and an internal lumen having a height less than ten times the thickness of the delivery tube at the location of the bleed port providing unrestricted gas exchange with the environment; each bleed port having a characteristic diameter, selected depending on the plenum volume and the flow introduced into the nasal cannula to provide a CO2 concentration to the nasal inserts of below approximately 0.5%.

7. (Currently Amended) The nasal cannula of claim 6 further comprising:

~~the one or more bleed ports having an internal lumen;~~

the one or more bleed ports located directly in line with one of the two nasal inserts for preferentially intercepting expired gas during an exhalation, the one or more bleed ports having a characteristic bleed port diameter called BPD, and the one or more bleed ports separated by a distance called L.

8. (Previously Presented) The nasal cannula of claim 6 further comprising:

the one or more bleed ports have a diameter between 3/8 inches and 5/8 inches.

9. (Previously Presented) The nasal cannula of claim 6 wherein:

the two nasal inserts terminate in compliant flanges at their distal ends to conform to the nare of a patient.

10. (Previously Presented) The nasal cannula of claim 9 wherein:

each of the two nasal inserts has a characteristic length;

the length of either the first or second nasal insert is sufficiently long to allow an insert to move in the nasal passage until the cross section area of the nare and the cross section area of the nasal insert are substantially the same, thereby forming a positive pressure seal between said nasal insert and said nare.

11. (Currently Amended) A nasal cannula, comprising:

a first nasal insert and a second nasal insert designed to be inserted and form a seal in the nares of a patient, the area disposed between the first nasal insert and the second nasal insert is not indented;

a first delivery tube and a second delivery tube each coupled to both the first nasal insert and the second nasal insert;

a coupler for coupling the nasal cannula to a source of respiration gas; and

at least one bleed port positioned proximate a nasal insert having an opening flush with the exterior of the nasal cannula[.]and an internal height less than ten times the thickness of the delivery tube at the location of the bleed port.

12. (Previously Presented) The nasal cannula as in claim 11, wherein the at least one bleed port communicates with the first and second delivery tubes and opens to atmospheric pressure.

13. (Previously Presented) The nasal cannula as in claim 11, wherein the at least one bleed port is substantially linearly aligned with one of the first nasal insert or second nasal insert.

14. (Previously Presented) The nasal cannula as in claim 11, wherein the at least one bleed port has a diameter between 3/8 inches and 5/8 inches.

15. (Previously Presented) The nasal cannula as in claim 11, wherein the at least one bleed port is located and sized to reduce the carbon dioxide content of inspired air to a value below between approximately 0.2% to 0.7% carbon dioxide for the air inhaled from and retained by the delivery tubes.

16. (Previously Presented) The nasal cannula as in claim 11, wherein the area between the first and second nasal inserts that is not indented increases the rigidity of the cannula.

17. (Previously Presented) The nasal cannula as in claim 11, wherein the first and second nasal inserts terminate in a compliant flange at their distal ends to conform to the nare of a patient.

18. (Previously Presented) The nasal cannula as in claim 17, wherein the nares of a patient will deform the shape of the first and second nasal inserts and their compliant flanges to form a seal between the nasal cannula and the nares of the patient.

19. (Previously Presented) The nasal cannula as in claim 11, wherein the length of either the first or second nasal insert are sufficiently long to allow an insert to move in the nasal passage until the cross section area of the nare of a patient and the cross section area of the nasal insert are substantially the same, thereby forming a positive pressure seal between said nasal insert and said nare.

20. (Previously Presented) The nasal cannula as in claim 11, wherein the coupler is y-shaped.